AWIPS SOFTWARE INSTALLATION INSTRUCTION NOTE 50
(for Electronics Systems Analysts)
Maintenance, Logistics, and Acquisition Division
W/OPS12: JCS

SUBJECT:	Maintenance Release OB3.3
PURPOSE:	To provide installation instructions for Maintenance Release OB3.3
AFFECTED SITES:	All AWIPS sites must install this maintenance release.
PREINSTALLATION REQUIREMENTS:	AWIPS Software Release OB3.2 must be installed.
PATCH NUMBER	MROB3_SEC_A100590
AUTHORIZATION:	The authority for this modification note is Request for Change AB184.
SECURITY LEVEL:	root
ESTIMATED TIME REQUIRED:	**Required steps:** The pre-install section takes 20 minutes. It takes approximately 1 1/2 hours for the installation, localization, and push script to complete, depending on the number of workstations. The RiverPro post-install step takes about an hour. **Optional steps (see F and G) approximately 2 to 6 hours:** For Watch/Warning/Advisory (WWA), since there are about 100 new WWA templates in OB3.3, the post install step can vary. If sites can operate with baseline OB3.3 WWA templates, the post install step is minimal. If the site must customize all templates, it can take 2 to 4 hours. Note that the hydrology and marine templates (see attachment B) should not be activated until November/December 2004. For WarnGen, there are 11 new WarnGen templates delivered in OB3.3 and the time to do the post install step varies. The site has pre-OB3.3 legacy WarnGen templates active after OB3.3 is installed. Generally, these OB3.3 templates can be customized as time permits.
EFFECT ON OTHER INSTRUCTIONS:	File this note in EHB-13, Series II, section 3.1. Discard all previous software installation instructions, prior to Build OB1 (AWIPS Software Installation Instruction Note 37) in section 3.1.
VERIFICATION STATEMENT:	The Maintenance Release OB3.3 installation procedure was tested and verified at Silver Spring, MD (NMT systems), La Crosse, WI (ARX), Charleston, SC (CHS), Wichita, KS (ICT), Newport, NC (MHX), Reno, NV (REV), Lubbock, TX (LUB) and Western Region Headquarters, UT (VHW).
TECHNICAL SUPPORT:	For questions or problems regarding these installation instructions or installing this Release, please contact the NCF at 301-713-9344.

MROB3.3 Patch Summary

1. WarnGen MWS does not display marine zones on D2D (DR_14097).
2. WarnGen QC has problems with multiline UGCs and cities lists (DR_14230).
3. Additional RiverPro VTEC requirements for service backup. (DRs 14285, 14289).
4. Need new MHS action code for RiverPro VTEC Service Backup (DR_14287).
5. Numbering problem with correction event tracking numbers (ETN) (DR_14335).
6. Disable format checking for the third bullet in WarnGen templates (DR_14376).
7. Users do not want SVS expiration notice (DR_14321).
8. IGC Process is not auto-updating the local warnings plot pane (DR-14515).
9. Cannot reset warning pull down menu after selecting COR or NEW (DR-14513).
10. Implement GRIB2 Decoder (DR_14098).
11. Support downscaled GFS and Eta Extension (DGEX) grid (DR_14100).
12. Add CP filtering for Eta 12 and DGEX (DR_14502).
13. Acqserver not ingesting DGEX products (DR_14554).
14. WarnGen implements segmented follow-up (DR_14555).
15. WarnGen keeps warning in follow-up menu for exp+10 minutes (DR_14556).
16. Sort WarnGen pathcast locations in chronological not alphabetical order (DR_14564).
17. WarnGen-Problem with matching up SVRs and TORs with corresponding SVSs (DR_14566).
18. WarnGen-Implement FFW feature tracking with default of zero motion (DR_14559).
19. OB3-P FFMP: ORPGb6 bug could affect FFMP (DR_14560).
20. Grib2 decoder problems (DR_14579).
21. SAFESEAS customizable data file permissions are too restrictive (DR_14584).
22. GFS80 does not display a time/height or cross section of relative humidity (DR_14593).
23. Implement WWA OB4 changes (DR_14599).
24. Display hang for some mesos (DR_14624).
25. WarnGen QC should allow the ">" symbol in the UGC line for SMW (DR_14652).
26. WarnGen QC has problems with multi-line UGCs and cities lists (DR14230).
27. VTEC lines in non-convective flash flood products with undefined intensity don't decode properly (DR 14747).
28. Change wording of expirations from WILL EXPIRE AT to EXPIRES AT (DR 14763).
29. VTEC transition state and expiration time fixes (DR 14760).
30. Local Warning Graphic and Follow up Action list problem (DR 14805).
31. RiverPro problems with OB3.3 field testing (DR 14820).

ROB3.3 Detailed Description:

The following are problems or bugs fixed in OB3.3, and includes a description of the new functionality.

1. WarnGen MWS does not display marine zones on D2D (DR_14097).

   When the MWS product is selected in WarnGen, the marine zones are supposed to display on D2D. The problem is that when the MWS is selected, by default the marine zones are blacked out and the land zones display instead. This happens both when the MWS is a follow-up to a SMW and also when the MWS is issued without an associated SMW.

2. WarnGen QC has problems with multiline UGCs and cities lists (DR_14230).

   If enough counties/zones are selected in WarnGen so the generated UGC spans two or more lines, the QC claims the VTEC is missing. WarnGen seemed to consider the cities lines after the initial "THIS INCLUDES" lines as counties and reported an UGC/county list mismatch error.

3. Additional RiverPro VTEC requirements for service backup (DRs 14285, 14289).

   Currently, RiverPro recommends its event tracking number using a numeric sequence independent for each of the product modes. A clarification of the VTEC rules states that the ETN "pool" should be shared among all product modes. Therefore, the ETN recommendation algorithm in RiverPro will be modified.

   For VTEC, RiverPro needs to have service backup capability to support ETN computations. To do this, the application must be changed to send data upon issuance to adjacent offices, and must be changed to receive data from these other offices and use it accordingly.

4. Need new MHS action code for RiverPro VTEC Service Backup (DR_14287).

   For VTEC, RiverPro needs to have service backup capability to support ETN computations. A new MHS action code is added to enable this requirement.

5. Numbering problem with correction ETNs (DR_14335).

   A problem with the numbering of correction ETNs was found. The correction numbering problem is a result of not transferring the VTEC numbers from the original issuance product to the correction product, leaving all the correction VTEC numbers at 0001 all the time.

6. Disable format checking for the third bullet in WarnGen templates (DR_14376).

   Sites need more flexibility in the QC checking for the third bullet (basis for warning) in the WarnGen templates. Since some sites' preferred wording would always trigger the QC checker, the decision was made to have the QC checker skip the basis for warning bullet.

7. Users do not want SVS expiration notice (DR_14321).

   In AWIPS, the warning expiration reminder pops up 10 minutes before the warning expires. This feature is not desired for the follow-up statements and will be limited to initial warnings only.

8. IGC Process is not auto-updating the local warnings plot pane (DR-14515).

   IGC Process does not auto-update the local warnings plot pane for new warnings. The user must close/reload to see new warnings or to remove expired ones. The local warning plot does not currently auto-update for cancelled or expired warnings, but the regions felt it was a major issue that the plot does not update for new warnings.

9. Cannot reset warning pull down menu after selecting COR or NEW (DR-14513).

   If the COR or NEW option is selected from a warning pulldown by mistake or an entirely new and unique warning is issued, there is no way to "reset" the pull down menu. Clicking "UPDATE LIST" does not reset the menu entry to "CORRECT/REISSUE" but maintains the COR or NEW selection previously.

10. Implement GRIB2 Decoder (DR_14098).

    The OB4 GRIB2 decoder will be delivered in OB3.3.

11. Support Downscaled GFS and Eta Extension (DGEX) grid (DR_14100).

    Add capability to decode and display DGEX grid data on grids 185 and 186**.**

12. Add CP filtering for Eta 12 and DGEX (DR_14502)

    The WMO headers for the Eta 12 (Grib2) and DGEX grids have been finalized. The `acq_send_parms.sbn` file on the CPs needs to be updated to forward these products to PXs.

13. The acqserver is not ingesting DGEX products (DR_14554)

    The acqserver is categorizing DGEX products as "OTHER" rather than "GRID", so they never get put in the rawGrib2 directory.

14. WarnGen implement segmented follow-up (DR_14555).

    When a warning is followed-up by moving the box in a way that removes some counties, a segmented follow-up statement will cancel the counties removed and continue the remaining counties.

15. WarnGen needs to keep warning in follow-up menu for 10 minutes after expiration time (DR_14556).

    Keep the warnings in the follow-up list for 10 minutes after the expiration time to allow expiring statements to be written.

16. Sort WarnGen pathcast locations in chronological not alphabetical order (DR_14564).

    The WarnGen pathcast location sorting is supposed to be chronological, not alphabetical.

17. WarnGen-Problem with matching up SVRs and TORs with corresponding SVSs (DR_14566).

    There is a bug in the software preventing SVRs and TORs from being matched up internally with the corresponding SVSs. It would be more troublesome in OB3.3 because it prevents the ability to issue the segmented SVSs.

18. WarnGen-Implement FFW feature tracking with default of zero motion (DR_14559).

    The default flash flood templates will now include a non-text generating. This substitution will initialize storm motion as stationary for flash flood products. One still needs to drag the point to the desired area, but until one moves the tracking icon on a different frame, the motion remains exactly zero. The text generated reflects this. Zero motion results in describing the storms as being 'OVER' the area instead of at a specific point, and result in a cities list instead of a pathcast. If one uses the tracker in a way that results in a very slow motion, the storm is described in reference to a location, with `STATIONARY' motion, and one has the option to turn on or off the pathcast, just as it does now. If one specifies a substantial movement with the tracker, WarnGen also behaves just as it does now in that case.

19. OB3-P FFMP: ORPGb6 bug could affect FFMP (DR_14560).

    The Precipitation Detection Function (PDF) in ORPG has been replaced for precipitation calculations by a new algorithm called EPRE. The FFMPprocessor, however still uses a PDF-generated parameter called “Current Precip Category.” The problem is the old parameter can indicate no rainfall when rainfall is plainly occurring. This can occur due to user radar configurations, or to ORPG Build 6 DHR file error. The solution is to remove the last usage of this parameter, and allow FFMPprocessor to use EPRE. In case the ORPG Build 6 problem cannot be resolved, FFMPprocssor should be ready to handle this radar build prior to AWIPS OB4.

20. Grib2 decoder problems (DR_14579).

    The Grib2 decoder logs have frequent errors. Also, problems storing individual parameters and levels were found when testing with live data at NGIT. Modifications to `grib2CodeTablesSect4.txt` and `eta218.cdl` files are needed to fix the problems.

21. SAFESEAS customizable data file permissions are too restrictive (DR_14584).

    SAFESEAS customization files are created with overly restrictive permissions, causing users other than root and fxa to be unable to customize.

22. GFS80 does not display a time/height or cross section of relative humidity (DR_14593).

    Cannot display a time/height or cross section of relative humidity for GFS80. To test in the Volume Browser, choose Time Height, then GFS80, Rel Humidity and Tsect A or other point. The legend will load, but no data is plotted previous to the fix.

    The problem is in `XformFunctions.C`, where it was assumed that the last grid in the 3D stack used to make a cross section always has the dimensions of the grids of the data source, where in reality there can be a constant (usually null) in the last grid. The right thing to do is to search the list of grids for a non-deprecated grid, and use those dimensions.

23. Implement WWA OB4 changes (DR_14599).

    The WWA OB4 software is implemented in OB3.3.

24. Display hang for some mesos (DR_14624).

    Occasionally, the SCAN display executable hangs, hogging CPU. This happens only for some mesocyclones and some counties. The rest of the D2D is unaffected, except for the hit on the CPU.

25. WarnGen QC should allow the ">" symbol in the UGC line for SMW (DR_14652).

    With the WarnGen QC checker in OB3.1, the QC checker does not like the > sign to be in the UGC line for SMW. Use of > sign with marine zones is not wrong, and therefore is corrected to allow for it. NWSI 10-1702 does not require the use of > in UGC, but does limit its use to only zones (i.e., not to be used with counties).

26. WarnGen QC has problems with multi-line UGCs and cities lists (DR14230).

    If enough counties/zones are selected in WarnGen so that the generated UGC spans two or more lines, the QC will claim the VTEC is missing. For the multi-line cities list, Warngen seemed to consider the cities lines after the initial "THIS INCLUDES" lines as counties and reported a UGC/county list mismatch error.

27. VTEC lines in non-convective flash flood products with undefined intensity don't decode properly (DR 14747).

    The fix is to add some code that allows non-convective flash flood warnings (dam break warnings) to be generated with unknown severity once VTEC is turned on. Pre-VTEC there should be no effect.

28. Change wording of expirations from WILL EXPIRE AT to EXPIRES AT (DR 14763).

    The new wording will make the grammar compatible for expiration times; either before or after the warning expires.

29. VTEC transition state and expiration time fixes (DR 14760).

    A change is required based on a clarification of requirements. During the transition, if an initial warning without VTEC codes is issued, a follow-up with VTEC codes will not be permitted. As for expiration times, the VTEC event end time must remain constant for expiration statements.

30. Local Warning Graphic and Follow up Action list problem (DR 14805).

    Some warnings will not plot in the local warnings graphic and some products that represent still valid warnings will not appear in the follow-up action list in the warnGen GUI with a mixture of legacy and modernized WMO ids (i.e. KDEN and KBOU)

31. RiverPro problems with OB3.3 field testing (DR 14820).

    During OB3.3 testing, three problems were discovered in RiverPro testing:
    a. The template instruction for the headline section could not be saved, thereby preventing the headline section from being generated in the product.
    b. The program crashed when trying to save a settings file to which the user did not have access.
    c. The program automatically inserted a leading dot in the basis section, and leading/trailing ellipses in the headline section. These should not be there until the later formal implementation of 10-922, which mandates these features.

A. Pre-installation Requirements

1. ROB3.2 must be installed.

2. Any site that installed the OB4 WWA alpha software must uninstall it prior to installing OB3.3.

3. Just prior to installation, log out of all the D2D sessions on all workstations, including Text Workstations (if present).

4. Read the following note that applies to any site using RiverPro.

NOTE:	There is an important post install step in Section E pertaining to RiverPro. It must be done after the OB3.3 upgrade or RiverPro will not run.

5. Check http://www.ops1.nws.noaa.gov/awips_softwre.htm web page to see if a lessons learned document is available for this release.

A.1 Pre-install Step for OB3.3 WarnGen

This information should also be given to the WarnGen focal point.

Background

WFO sites operationally using WarnGen should be aware that 11 new WarnGen templates are being delivered in OB3.3. These and the new software support the switch from unsegmented statements to segmented statements, a new optional default stationary storm motion for flash flood products, and a 10-minute window for issuing product expirations and cancellations.

The segmented follow-up products are currently scheduled to be implemented nationwide on November 3, 2004 at 12 UTC. VTEC is currently scheduled to be implemented nationwide during early February, 2005. Detailed implementation instructions will be provided as the segmentation and VTEC dates approach.

An FSL web page with some OB3.3 background information is found at.

http://www-sdd.fsl.noaa.gov/~ramer/noaa/ob3.3-wgn/ob3.3-wgn.html

As part of the installation, a script runs to remove the <SEGMENTED> code from all the current templates. However, there are some templates, such as those for Special Weather Statements (SPS) and Short Term Forecasts (NOW) that already use single segments. The <SEGMENTED> code may need to be restored to those templates before the localization step is done (see section B, step 6.c).

Procedure

1. Before installing OB3.3, the WarnGen focal point should verify that all customized WarnGen templates are located in `/data/fxa/customFiles`, including any templates that are specifically for backup sites.

2. (Optional) If a site uses any segmented SPS, NOW, or SLS templates in warnGen, save a copy of those files in a safe directory other than `/data/fxa/customFiles`.

3. Download some scripts from the NOAA1 server that will be run during the upgrade.

   a. From a Linux workstation, login as `root`, open a telnet window, then logon to **DS1** as `root`:

   ```
   rlogin ds1
   ```

   a. Go to the `/data/local/ROB3.3` directory:

   ```
   su – fxa
   cd /data/local/ROB3.3
   ```

   b. Connect to the NOAA1 ftp server by entering the command:

   ```
   ftp 165.92.25.15
   ```

   Once connected to the NOAA1 ftp server, login as user `ftp`, with the appropriate email address as the password.

   c. Obtain two files from the NOAA1 ftp server. One file is used during the upgrade for WarnGen (`ob33warngenprep.csh`) the other by WWA (`ob33_WWA_hydro_marine.csh`). Type the following:

   ```
   binary
   hash
   prompt            (Use this only to prevent prompts for each file)
   cd /pub/BuildOB3.3
   mget *            (two files will be received)

   bye
   chown fxa:fxalpha ob33warngenprep.csh
   chmod 775  ob33warngenprep.csh
   chown fxa:fxalpha ob33_WWA_hydro_marine.csh
   chmod 775  ob33_WWA_hydro_marine.csh
   ```

A.2 Pre-install step for OB3.3 WWA templates

This information should also be given to the WWA focal point.

The following involves customizing and saving WWA templates. The section entitled Background Information summarizes the WWA template strategy for OB3.3. The section entitled Procedure provides steps the site can perform before the OB3.3 upgrade.

Background Information

The following describes the WWA template implementation strategy for OB3.3.

In OB3.3, the new hydrology and marine templates are placed into directory `/data/local/tmp/wwa_OB4_hydro_marine_templates.tar` on DS1. The specific files are listed in Attachment B. These **will not** be active after the OB3.3 install script and localization is run. These hydro and marine supplied templates will not become operational until November/December 2004 (see the Service Change Notice [SCN] for exact dates). All other WWA templates delivered are to be placed into directory `/awips/fxa/data/localization/nationalData`.

NOTE: **On the day of the OB3.3 upgrade,** but before the install script is started, all WWA templates in directory `/data/fxa/customFiles` must be **removed** and placed into a safe storage directory (see step B4). Next, a script called `ob33_WWA_hydro_marine.csh` is run to first copy baseline pre-OB33 WWA hydrology and marine templates into `customFiles`. The removal and running of the script are needed as OB4 preparation steps to preserve those templates. Finally, the script goes to the storage directory and copies any site-customized hydrology and marine templates back into `customFiles`.

As a result, after the OB3.3 install script and localization are done, the site will be operating, for the most part, on **baseline** OB3.3 templates. The exception is that hydrology and marine templates will still be using pre-OB33 versions.

After the OB3.3 upgrade, the site performs two WWA post install steps.

1. Customize, as needed, the OB3.3 templates placed in `nationalData` and save in `customFiles`. Guidance is provided in a document titled *How to Customize Template Files* found on the following web page:

   http://www.nws.noaa.gov/mdl/wwa/docs/customize_templates.htm

2. Prepare to customize and activate the new hydrology and marine templates for their implementation around November/December. Guidance is provided in a document titled *How to Merge Hydrology or Marine Templates* found on the following web page:

   http://www.nws.noaa.gov/mdl/wwa/docs/merge_Hydro_or_marine_templates.htm

NOTE: It is essential for WFO sites that use WWA to follow these directions. Otherwise, there will be problems with WWA after the install of OB4.

Procedure:

1. The site needs to read and understand the background information above before proceeding.

2. In section A1, step 3, two files were downloaded. WWA needs one during the upgrade. If this step has not been completed, go to section A1, step 3 and download the file now.

3. Review WWA post install steps to become familiar with what needs to be done after the OB3.3 upgrade.

A.3 Pre-Install Step for OB3.3 RiverPro

1. Check that all WFO/HSA identifiers are defined

   The service backup operations of RiverPro require that HSA and WFO identifiers for each river forecast point be properly defined so they can be assigned as the host, primary backup, and secondary backup for each forecast point. It is possible that an office does not have all the identifiers defined.

   To check which identifiers are defined, follow these steps:

   a. Start the HydroBase application
   b. Select any location from the main list of locations (stations) displayed.
   c. From the main menu, select the option Location|Modify Location...
   d. Review the list of WFOs and HSAs presented in a scrolled list near the right side of the resulting window.
   e. Check that all WFOs and HSAs that the local site's office either provides service backup to or receives service backup from are in the list.

   If there are HSA or WFO identifiers missing from the list, they need to be added using the dbaccess utility. In previous builds, HydroBase had this ability but was removed per regional request. To add an HSA or WFO, follow these steps:

   a. Log on to the DS1 machine as the user `oper`.
   b. Issue the command:
      `dbaccess hd_ob3`*`xxx`*, where *xxx* is the site's office identifier
   c. Access the sql mode, by selecting **Q** (query language), then **N** (new).
   d. Enter the following sql command for each missing HSA identifier:
      `insert into HSA values` *XXX*; where *XXX* is the missing identifier
   e. Execute the command by pressing the **Escape** key to exit the SQL editor, then select **R** (run). The output should say ## row(s) inserted.

f. Repeat steps **d** and **e** for any missing WFO identifiers, being sure to specify WFO instead of HSA in the SQL command.

After adding any missing HSA and WFO identifiers, repeat the earlier steps for checking which identifiers are defined, to confirm that all the expected values are present.

2. **Define the Responsible Offices for Counties**

Now that all identifiers are defined, it is required that the responsible host, primary backup, and secondary backup for each forecast point are defined. This information is used in the install process to populate the backup offices for the river forecast points. To define the responsible offices, follow these steps:

a. Start the HydroBase application.

b. From the main menu, select the option Setup|State, Counties, Zones…

c. In the middle portion of the resulting window is a list of the defined counties, and their associated office associations. Review this list for completeness. If any of the counties have "UNK" of "unk" defined as one of the three associated offices, the information should be updated using the features provided in the window.

A.4 Pre-Install Step for sites that use WsEta (optional)

Background

The OB4 GRIB2 decoder is installed as part of the maintenance release. As a result, the `gribModelsNCEP_ed1.txt` file is reorganized and will no longer include the entry for the WsEta model. To continue receiving the model after OB3.3 is installed, a file must be created in `/data/fxa/customFiles`.

Once this file is in `/data/fxa/customFiles`, it will be appended to `/awips/fxa/data/localizationDataSets/`*`XXX`*`/gribModelsNCEP_ed1.txt` when a -grids localization is done.

Procedure

1. As user `fxa` on DS1, go to the `/data/fxa/customFiles` directory and create a file called *`XXX`*`-gribModelsNCEP_ed1.txt` (where *XXX* is the localization site ID)

```
cd /data/fxa/customFiles
vi XXX-gribModelsNCEP_ed1.txt
```

2. Place the following entry in the new file and save.

```
83    |MESOETAB|MESO ETA Model - Backup version
```

This completes the pre-installation procedure.

B. Maintenance Release Installation Procedure
(Duration = 15 to 20 minutes)

1. This step applies to sites that have previously installed OB4 WWA alpha. Other sites proceed to step 2.

   OB4 WWA must be de-installed before installing OB3.3. Perform the following steps:

   a. Open a Linux xterm window.

   b. Login as user `root`.
   `su -` *<enter password when prompted>*

   c. Log into DS1.
   `ssh ds1` *<enter password if/when prompted>*

   d. Change directory to `/data/local/tmp`.
   `cd /data/local/tmp`

   e. Set logging and execute de-install script. Must be in `/data/local/tmp`.
   `script –a /data/local/tmp/wwa_OB4_alpha_deinstall_log.out`
   `./WWA_OB4_INSTALL_DEINSTALL.sh –dein`

   f. Once de-install completes, terminate logging session. To do this type:
   `ps -ef |grep script`

   Find the PID, then terminate the process by typing:
   `kill <PID>`

   `exit`

2. From an xterm window, installer must log into DS1 as `root`.
   `rlogin ds1 -l root`

3. Change to the `/data/local/ROB3.3` directory.
   `cd /data/local/ROB3.3`

4. Create a script output log file.
   `script -a ROB3.3.out`

5. This step applies to sites that use WWA operationally and/or have customized WWA templates in `/data/fxa/customFiles`. Other sites skip to step 6.

   Create the `/data/local/ob3WWAcustomFiles` directory (see steps 5.a through 5.c), and move all pre-OB3.3 customized templates from the `/data/fxa/customFiles` directory (see step 5.d). Next, use the script `ob33_WWA_hydro_marine.csh` to move

baseline or customized pre-OB3.3 WWA hydro/marine templates back into `/data/fxa/customFiles` (see steps 5.e and 5.f).

a. **`su - fxa`**
b. **`cd /data/fxa/customFiles`** Go into `customFiles`.
c. **`mkdir /data/local/ob3WWAcustomFiles`** Create storage directory.

In the next step, WWA templates are moved into storage on DS1.

d. **`mv *WWA_*.preWWA /data/local/ob3WWAcustomFiles`**

The following script places baseline or customized pre-OB3.3 WWA hydrology and marine templates into `/data/fxa/customFiles`.

e. **`cd /data/local/ROB3.3`**

f. **`./ob33_WWA_hydro_marine.csh`** Ignore any *no such file or directory* errors.

`exit` Returns to root user

NOTE: At this point, the only WWA templates in `customFiles` are either baseline pre-OB3.3 marine and hydrology templates (needed for OB4 preparation) or the customized pre-OB3.3 marine and hydrology templates, if the site had any.

6. This step applies to sites that use WarnGen operationally and/or have customized WarnGen templates in `/data/fxa/customFiles`. Other sites skip to step 7.

   a. Switch to user `fxa` and change to the ROB3.3 directory:
   `su - fxa`
   `cd /data/local/ROB3.3`

   b. Run the following script to preserve current WarnGen template setup.

NOTE: The following script assumes the WarnGen templates are owned by user FXA.

`./ob33warngenprep.csh`

   c. (Optional) If WarnGen templates were saved off in section A1, step 2, those files should be copied back into `/data/fxa/customFiles`.

   d. Exit out of user `fxa` and back to user `root`.
   `exit`

7. Uncompress the release bundle.
   `zcat ROB3.3.tar.Z | tar xvf -`

8. Run the installation script by typing:
   `./installROB3.3`

9. To stop the script output, type:
   `./stopscript`

This completes the maintenance release installation procedure. A post installation localization and push script are done in Part D.

C. Post Installation Checkout Procedure

1. Check for any files that may not have been correctly removed/copied, by typing:
   `grep busy ROB3.3.out`

   If there are any *cannot write: Text file busy* messages, the mentioned files have to be manually copied or removed.

2. Users can log back into their workstations at this time. However, it is preferred that users wait until Part D is completed before logging in. If users do login at this point, it is recommended that users log out of ALL sessions again and back into their workstation following the completion of Part D. This enables the latest localization changes to be seen.

D. Post Installation Localization

NOTE:	To enable the updates for items 1, 11, 12, and 22, the following steps need to be performed after the installation.

1. Check to see if a site-specific file was moved by the installation script.
   `ll /data/fxa/customFiles/eta218.cdl.ROB3.3_SAVED`

NOTE:	If `eta218.cdl.ROB3.3_SAVED` exists in the `customFiles` directory, then the install script moved the site-specific custom file in order to allow activation of the Grib2 data. If these changes are still required, the site needs to merge the site-specific changes with the updated baseline file, `/awips/fxa/data/eta218.cdl`.

2. On PX2 as user `fxa`, execute the following "forced" localization (duration = 5 minutes).

NOTE:	Localization and push are executed on PX2, not DS1!

```
rlogin px2 -l root
su - fxa
cd /data/local/ROB3.3
```

```
./backup_safeseas.csh
cd /awips/fxa/data/localization/scripts
./mainScript.csh f -wwa -dataSups -grids -auxFiles -safeseas
cd /data/local/ROB3.3
./restore_safeseas.csh
exit                                    (returns to user root)
chmod -R 664 /data/fxa/workFiles/safeseas
chmod 775 /data/fxa/workFiles/safeseas
chmod 775 /data/fxa/workFiles/safeseas/display_thresholds
chown -R fxa:fxalpha /data/fxa/workFiles/safeseas
```

3. Upon successful localization, on PX2 as user `root`, execute the following "push" script (duration = 45 to 60 minutes; site-specific based on number of workstations).

```
rlogin px2 -l root
cd /data/local/ROB3.3
script -a -f push_localization_ROB3.3.out
/push_localization_ROB3.3
exit
```

E. Post Installation Steps for RiverPro

(Duration = 60 to 75 minutes)

NOTE:	All sites must do this post install step to restore RiverPro functionality.

Perform each of these steps described below. Each step is required to ensure proper operation of RiverPro. All the below steps should be performed as the user `oper`.

E.1 Edit the RiverPro Product Issue Script

Edit the `/awips/hydroapps/whfs/local/bin/rpf_issue` script using a text editor. This script usually has local changes to it, so a new copy cannot be installed since it would overwrite the local changes. Make the following changes, which allow the log file to be a daily log file rather than a log of only the most recent entries.

1. Just before the line that reads `LOGNAME=$RPF_LOG_DIR/rpf_issue.log`, insert this new line:

   `DATESTR=`date -u +%Y%m%d`` **(Note: Important to use backquotes)**

2. Edit the line: `LOGNAME=$RPF_LOG_DIR/rpf_issue.log` so it reads:

   `LOGNAME=$RPF_LOG_DIR/rpf_issue.log.$DATESTR`

3. Remove the following line:

   ```
   LOGTMP=$RPF_LOG_DIR/rpf_issue.tmp
   ```

4. Remove these two lines near the end of the script:

   ```
   tail -1200 $LOGNAME > $LOGTMP
   mv $LOGTMP $LOGNAME
   ```

E.2 Move the Summary Prologue Templates into Headline Template File

An associated change has been made as part of ongoing RiverPro development to implement NWSI 10-922. In the past, the summary "prologue" section, if included, always preceded the summary "body" section. Now, it is treated as a separate, independent section and renamed to be the "headline" section. This results in a series of required changes.

Each office is required to edit the summary template files. Specifically, for each of the `summary.tpl.`*XXX* files in `/awips/hydroapps/whfs/local/data/app/riverpro`, where *XXX* is the WFO identifier, the following changes are required:

1. Change to the RiverPro template file directory:
   `cd /awips/hydroapps/whfs/local/data/app/riverpro`

2. Copy each file `summary.tpl.XXX` to `headline.tpl.XXX` ensuring the *XXX* suffix of the file matches.
   `cp summary.tpl.XXX headline.tpl.XXX` ...where *XXX* is the office identifier

3. Edit each `summary.tpl.XXX` file and remove all templates with the string "prologue" in their name.

   A template file consists of multiple templates, where each template definition begins with a line starting with the keyword "name: template_name," where the template name is uniquely defined. If the template name contains the string "prologue" in its name, remove the template definition. This is done by deleting a block of lines, beginning with the line: name: ...prologue... and continuing and including the line just before the next template definition begins (as noted by the name: template_name). Repeat this for however many prologue templates there are in the file.

   Remember to do this for each `summary.tpl.XXX` file, which should include the local WFO and any other WFOs that require service backup.

4. Edit each `headline.tpl.XXX` file for the appropriate WFO and remove all templates that DO NOT have the string "prologue" as part of its name. See the preceding steps for instructions on this step. The net effect of editing these two files is that the templates, which were in one file, are now separated into two files.

   Remember to do this for each `headline.tpl.XXX` file including the WFO and WFOs for which the site provides service backup.

E.3 Update Product Definition Sets to Account for New Headline Section

The new headline section information is no longer automatically associated with the summary section, so it must have its order in the product and its template defined.

If the summary prologue section is used for any product definition sets, then it will not be included in the product in its new form as the headline section unless changes are made. The product definition set must be updated to include the headline section and to specify its order. Most products will include the summary section. To identify which product definition sets are affected, and to examine the existing order of the product sections, follow these steps:

1. Run a script provided listing the product definition sets affected by the addition of the headline section that need to be updated. To do this, move to the directory containing the script and run the script, as follows:

   ```
   cd /awips/hydroapps/ihfsdb_conversion
   list_pccfiles.ksh
   ```

   This script produces a listing of the product definition sets, which include the summary prologue section. The listing is placed in the file `list_pccfiles.out`.

For each product definition set, the listing gives the filename (for reference purposes), followed by the product id and description, which appear in the list displayed on the left side of the main RiverPro window. It also gives the order of the included sections and the name of the prologue section. For convenience, the user may wish to print the output file and reference it when making the changes described below. It can be very helpful when performing the following changes.

Typically, the new headline section is the first section.

For each of the product definition sets affected, run the RiverPro application to adjust the product section inclusion/order specification. To know which sets are affected, reference the product id and description listed in the printout.

2. Select the product definition set. This is done by selecting the entry on the scrolled list located on the left side of the main RiverPro window.

3. Access the Settings|Modify product section... dialog and define the proper order of the headline section. The existing section order and prologue template as listed in the printout should be referenced during this step.

   Formerly, including the summary section with a prologue resulted in the Summary “prologue” section being located just before the Summary “body” section. Now the prologue section is handled separately and has been renamed to the “headline” section. Therefore, if the Summary Section was formerly listed as the first section, now the Headline section is first, the Summary section is second, and the previous second section is shifted to third, etc. To adjust the order of the sections, use the left side of the Settings|Modify product section…dialog. To exclude a product section, select "Excluded", otherwise select the ordinal value.

   After specifying the order, the name of the Headline template to use must be specified. Using the printout listing again, select the Headline pushbutton, which results in a display of available Headline templates. Pick the name matching the previously used prologue name, and select the OK button.

   Now that the order of sections is defined, and the Headline template is defined, save these settings into the program memory by selecting the Apply button.

4. Access the Settings|Save to Settings file... dialog and save the settings to the `pcc` file, which preserves the product definition set information. If this product is a routine product, which should have a predefined set of forecast points defined for it, then remember to select the "Save Instructions for Including Specific Forecast Points" toggle button. To save to the file, select the OK button.

   Repeat this for each of the affected definition sets.

E.4 Define the Primary and Secondary HSA Backup Office Assignments

The installation of this patch provides a default value for these fields required for each forecast point. The default values for the HSA primary and secondary backup offices are defined to be the same as the CWA backup assignments. The CWA backup is based on the relationship of a location being within a county, which in turn has backup offices defined for it.

If the HSA and CWA boundaries do not coincide, the user should adjust these values accordingly. Also, the HSA backup values may need to be reviewed. To review or edit the values, use the HydroBase application. For each of the river forecast points, use Hydrobase to define the backup office information in the following manner:

1. Access the Setup|RiverPro Forecast Group/Points... dialog.

2. For each forecast group listed in the top half of the window, the list of forecast points within the group are listed in the bottom half of the window. Selecting a different forecast group brings up the group's list of forecast points.

3. For each forecast point, define the primary and the secondary HSA backup office using the features in the bottom half of the window. Repeat this for each forecast point in the group; then repeat this for each forecast group.

   The above method provides information for only one forecast point location at a time. Because there can be many forecast points, this process can take some time. There are other ways to view, but not edit, the office (e.g., HSA) designation information for a location. To help identify which river locations from the local office are forecast points and which office has official responsibility for the forecast point, any of the following steps can be followed:

4. Access the database info directly to find the host and backup HSA information for just the forecast points.

   a. Log onto the DS1 machine as the user `oper`.
   b. Issue the command: `dbaccess hd_ob3`*`xxx`*, where *xxx* is the office identifier.
   c. Access the SQL query mode, by selecting **Q** (Query Language), then **N** (New).
   d. Enter the SQL command:
      ```
      UNLOAD  TO  fp_list.out
      SELECT   lid, name, HSA, primary_back, secondary_back
      FROM  fpinfo;
      ```
      (The command is case-insensitive.)
   e. Execute the command by pressing the **Escape** key to exit the SQL editor, then select **R** (Run). The command should say ## row(s) unloaded. The resulting file `fp_list.out` the current directory can be printed for reference.

5. The host HSA for a single location is viewable from the HydroBase menu option Location|Modify Location.

6. A summary listing of all locations and their service backup information is available from the HydroBase menu option Reports|Text Reports... dialog, and by then selecting Service Backup from the List of available reports. This list can be printed out. Note that the list is for all locations, although RiverPro is only concerned with official river forecast point locations, and only shows the host HAS, not the backup HAS assignments.

7. The Riverpro menu option Forecast Point|Reference Information... dialog shows the HSA, Backup1, and Backup2 in the scrolled list at the top of window for the currently selected office. This indicates where the RiverPro backup information is sent upon product issuance.

F. Post Install Step for WWA Templates

WFOs sites that use WWA must perform three WWA post install steps.

After OB3.3 is installed, the new hydrology and marine templates are placed into `/data/local/tmp/wwa_OB4_hydro_marine_templates.tar` on DS1 and will not be active. The reason for this is that these should not become operational until around November/December 2004 (see appropriate SCN dates).

All other WWA templates delivered in OB3.3 are in directory `/awips/fxa/data/localization/nationalData`.

As a result, when WWA is run, only baseline OB3.3 WWA templates are active except for the hydrology/marine templates. For these latter templates, the pre-OB3.3 **baseline** or **site-customized** templates are active.

Sites need to perform the following WWA template and other procedures.

NOTE:	Sites that customize templates **must** begin with the OB3.3 templates, then add customizations into these templates.

NOTE:	The site needs to make a note that in the WWA composer hazard menu `Law Enforcement Warning` (LEW) is under `Warnings->Miscellaneous` rather than under `Warnings->Civil Emergency`. This will be fixed in OB4.

F.1 WWA Templates (other than Marine and Hydrology)

Go to the following web page that has information on how to customize all OB3.3 WWA templates with the exception of the hydrology and marine templates.

Obtain the document called *How to Customize Template Files* at:
http://www.nws.noaa.gov/mdl/wwa/docs/customize_templates.htm

F.2 Marine and Hydrology WWA Templates

Go to the following web page to obtain a second document. This one describes how a site should customize the OB3.3 hydrology and marine templates when their activation date occurs around November/December 2004.

> Obtain the document called *How to Merge Hydrology or Marine Templates* at:
> http://www.nws.noaa.gov/mdl/wwa/docs/merge_Hydro_or_marine_templates.htm

F.3 Localization for Backup Sites

The appropriate localization must be run for each backup site before WWA can be used in backup mode for that site.

G. Post Install Step for WarnGen

After the OB3.3 upgrade, legacy templates should still be active. However, the site should begin migration, testing, and training using the OB3.3 WarnGen templates. Use the document called *OB3.3 WarnGen WFO Implementation Instructions* on the following web page.

> http://www.ops1.nws.noaa.gov/awips_install.htm

G.1 OB3.3 FFS, MWS, and SVS Templates

The following templates are those that need to be used when the products they create become segmented (see appropriate SCN). Customized versions of these templates can be put into `/data/fxa/customFiles` ahead of time or as soon as local testing and training has been completed.

1. `wwa_mar_wx_sta.preWWA` Marine Weather Statement (MWS)
2. `wwa_mws_nosmw.preWWA` Marine Weather Statement (MWS)
3. `wwa_flflood_sta_county.preWWA` Flash Flood Statement (FFS)
4. `wwa_svrwx_sta_county.preWWA` Severe Weather Statement (SVS)
5. `wwa_flflood_sta.preWWA` Flash Flood Statement (FFS)

On November 3, 2004, these templates are scheduled to be used operationally to create follow up messages that are segmented instead of unsegmented. On that day, a couple of configuration files will be put into place which act as a “switch” to turn on to the software to create segmented products. Information on how to do this is found in the documents referenced above in the beginning of section G.

G.2 Additional WarnGen templates updated in OB3.3

There were other template updates in OB3.3. Sites should begin customizing these templates as soon as practical after the OB3.3.

1.	`wwa_tor.preWWA`	Tornado Warning (TOR)
2.	`wwa_svr.preWWA`	Severe Weather Warning (SVR)
3.	`wwa_specmarine.preWWA`	Special Marine Warning (SMW)
4	`wwa_ffw.preWWA`	Flash Flood Warning (FFW)
5.	`wwa_dam_break.preWWA`	Flash Flood Warning (FFW)
6.	`wwa_ffw_svr.preWWA`	Combined Flash Flood Warning and Severe Thunderstorm Warning (FFW)

This completes the maintenance release installation post installation procedure.

REPORTING INSTRUCTIONS

Report the completed software installation using the Engineering Management Reporting System (EMRS) according to the instructions in NWS Instruction 30-2104, Maintenance Documentation, Part 4, Appendix F. Include the following information on the EMRS Report:

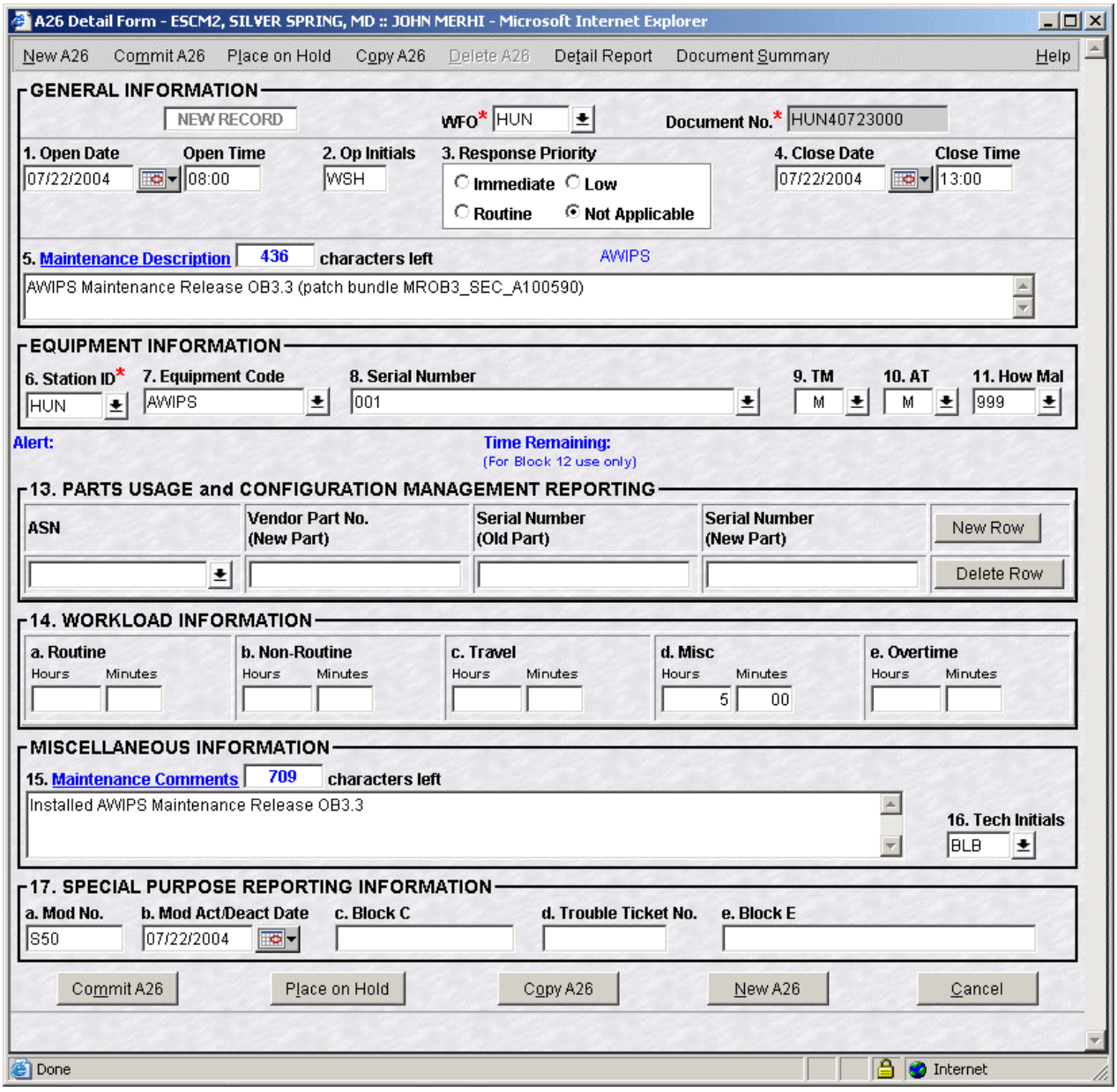
Block #	Block Type	Information
5	Description	Install AWIPS Maintenance Release OB3.3 (patch bundle # MROB3_SEC_A100590)
7	Equipment Code	AWIPS
8	Serial Number	001
15	Comments	Installed Maintenance Release OB3.3 (patch bundle # MROB3_SEC_A100590) I.A.W. AWIPS Software Installation Instruction Note 50.
17a	Mod. No.	S50

A sample EMRS report is provided as attachment A.

Mark S. Paese
Director, Maintenance, Logistics, and Acquisition Division

Attachment A - EMRS Report Sample
Attachment B - OB3.3 Marine and Hydrology Templates

Attachment A - Sample EMRS Report



Attachment B – OB3.3 Marine and Hydrology Templates

The following are the OB3.3 marine and hydrology templates delivered in OB3.3. It should be noted that these will be placed on DS1 as `/data/local/tmp/wwa_OB4_hydro_marine_templates.tar`. As a result, they will not be active after the OB3.3 install.

Marine:

```
WWA_cfw.preWWA
WWA_coast_fld_stmt.preWWA
WWA_coast_fld_wat.preWWA
WWA_coast_fld_wrn.preWWA
WWA_hvysurf_adv.preWWA
WWA_lakesh_fld_wat.preWWA
WWA_lakesh_fld_wrn.preWWA
WWA_lsh.preWWA
WWA_mw_stmt.preWWA
WWA_mws.preWWA
WWA_spec_mar_wrn.preWWA
```

Hydro:

```
WWA_ffa.preWWA
WWA_ffld_wat.preWWA
WWA_ffld_wrn.preWWA
WWA_flood_adv.preWWA
WWA_flood_wat.preWWA
WWA_flood_wrn.preWWA
WWA_fls.preWWA
WWA_flw.preWWA
WWA_minor_fld.preWWA
WWA_rvrlk_sum.preWWA
WWA_sm_strm_adv.preWWA
WWA_urban_adv.preWWA
WWA_urban_wrn.preWWA
WWA_hydro_outlk.preWWA
WWA_hydro_stmt.preWWA
WWA_hydro_sum.preWWA
WWA_river_sum.preWWA
WWA_rvrice_stmt.preWWA
WWA_rvrrec_stmt.preWWA
WWA_spcrvr_stmt.preWWA
WWA_water_supply.preWWA
```